WHAT IS CLAIMED IS:

1.   A method of transporting data through a data network, comprising the steps of:

receiving an encoded data;

5   mapping said received data to a predetermined data; and

multiplexing said mapped predetermined data.

2.   The method of claim 1 wherein said encoded data includes 8B/10B encoded data.

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3.   The method of claim 2 wherein said encoded data includes one of a Gigabit Ethernet data and a Fiber Channel data.

4.   The method of claim 1 wherein said step of receiving further includes

15   the step of determining a data rate of said received encoded data.

5.   The method of claim 4 wherein said step of receiving further includes the step of recovering a clock signal from said received encoded data.

20   6.   The method of claim 5 wherein said clock signal has a rate one tenth of said data rate.

7.   The method of claim 1 wherein predetermined data includes a 9-bit data.

25   8.   The method of claim 7 wherein said 9-bit data includes one of an arbitrary set of 9-bit data.

9.   The method of claim 1 wherein said multiplexing step includes the step of synchronizing said multiplexed predetermined data.

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10.   The method of claim 9 wherein said multiplexed predetermined data is

synchronized to a predetermined clock signal.

11.   The method of claim 10 wherein said predetermined clock signal includes a phase locked loop clock signal.

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12.   An apparatus for providing data transport through a data network, comprising:

a clock recovery unit configured to receive an encoded data;

a data translation unit coupled to said clock recovery unit, configured to translate said received data to a predetermined data; and

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an inverse multiplexer coupled to said data translation unit, configured to inverse multiplex said translated predetermined data.

13.   The apparatus of claim 12 wherein said encoded data includes 8B/10B encoded data.

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14.   The apparatus of claim 13 wherein said encoded data includes one of a Gigabit Ethernet data and a Fiber Channel data.

20   15.   The apparatus of claim 12 wherein said clock recovery unit is further configured to detect a data rate of said received encoded data.

16.   The apparatus of claim 15 wherein said clock recovery unit is further configured to recover a clock signal from said received encoded data.

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17.   The apparatus of claim 16 wherein said clock signal has a rate one tenth of said data rate.

18.   The apparatus of claim 12 wherein predetermined data includes a 9-bit

30   data.

19.   The apparatus of claim 18 wherein said 9-bit data includes one of an arbitrary set of 9-bit data.

20.   The apparatus of claim 12 wherein said inverse multiplexer is further configured to synchronize said multiplexed predetermined data to a predetermined clock signal.

21.   The apparatus of claim 20 wherein said predetermined clock signal includes a phase locked loop clock signal.

22.   The apparatus of claim 12 further including a modem coupled to said inverse multiplexer configured to receive said inverse multiplexed translated predetermined data for transmission.

23.   The apparatus of claim 22 wherein said inverse multiplexed translated predetermined data includes a plurality of STS-3 signals.

24.   The apparatus of claim 23 wherein said plurality of STS-3 signals includes eight STS-3 signals for transmission.

25.   An apparatus for providing data transport in a network, comprising:

a demultiplexer configured to demultiplex received data;

a data translation unit coupled to said multiplexer configured to translate said demultiplexed data to a predetermined data; and

a serializer coupled to said data translation unit configured to receive said translated predetermined data and accordingly to generate a corresponding encoded data.

26.   The apparatus of claim 25 wherein said received data includes a plurality of STS-3 signals.

27.   The apparatus of claim 26 wherein said plurality of STS-3 signals includes eight STS-3 signals.

28.   The apparatus of claim 26 further including a plurality of FIFOs each
5   configured to frame align said each of STS-3 signals, said frame aligned STS-3 signals corresponding to said received signal.

29.   The apparatus of claim 25 wherein said demultiplexed data includes a 9-bit data.

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30.   The apparatus of claim 29 wherein said 9-bit data has a data rate of 1,125 Mbits/second.

31.   The apparatus of claim 29 wherein said demultiplexer is further
15   configured to perform parity checks on said received data.

32.   The apparatus of claim 25 wherein said predetermined data includes a 10-bit data.

20   33.   The apparatus of claim 25 wherein said serializer is configured to synchronize the translated predetermined data.

34.   The apparatus of claim 33 wherein said translated predetermined data includes a 10-bit data.

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35.   The apparatus of claim 34 wherein said 10-bit data has a data rate of 1,250 Mbits/second.

36.   The apparatus of claim 35 wherein said encoded data includes an
30   8B/10B encoded data.

37.   A method for providing data transport in a network, comprising the steps of:

    demultiplexing a received data;

    translating said demultiplexed data to a predetermined data; and

    generating a corresponding encoded data based on said translated predetermined data.

38.   The method of claim 37 wherein said received data includes a plurality of STS-3 signals.

39.   The method of claim 38 wherein said plurality of STS-3 signals includes eight STS-3 signals.

40.   The method of claim 38 further including the step of frame aligning said each of STS-3 signals, said frame aligned STS-3 signals corresponding to said received data for demultiplexing.

41.   The method of claim 37 wherein said demultiplexed data includes a 9-bit data.

42.   The method of claim 41 wherein said 9-bit data has a data rate of 1,125 Mbits/second.

43.   The method of claim 41 further including the step of performing parity checks on said received data.

44.   The method of claim 37 wherein said predetermined data includes a 10-bit data.

45.   The method of claim 37 further including the step of synchronizing the translated predetermined data.

46. The method of claim 45 wherein said translated predetermined data includes a 10-bit data.

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47. The method of claim 46 wherein said 10-bit data has a data rate of 1,250 Mbits/second.

48. The method of claim 47 wherein said encoded data includes an 8B/10B encoded data.

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